

these alliances, if properly undertaken, could serve the public interest. However, unless clear guidelines are set by the Commission and the Department of Justice, the threat of antitrust action could discourage action by firms that would otherwise serve the public interest. We strongly urge the Commission to work with the Department to issue a clearly articulated set of guidelines that should be followed by firms interested in forming bidding consortia.


VIII. CONCLUSION

The Commissions task in this proceeding is to develop competitive bidding procedures that will promote the public interest in the full robust deployment of mobile services. To accomplish this goal the Commission must design equitable competitive bidding rules that afford participants the ability to compete for spectrum in a process that is open, fair and that avoids undue risk and complexity. NYNEX believes that the

proposals set forth in these comments would achieve the Commission's statutory goals and we urge their adoption.

Respectfully submitted,

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A PUBLIC INTEREST ASSESSMENT OF SPECTRUM AUCTIONS
FOR WIRELESS TELECOMMUNICATIONS SERVICES

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I. INTRODUCTION

In its Notice of Proposed Rulemaking, the Commission has requested comments on several issues concerning the design and operation of spectrum auctions for PCS and other wireless communications technologies. In this statement, we examine these issues from a public interest perspective.

We begin by identifying four key dimensions of the public interest. The first two goals relate to the attainment of economic efficiency, which is widely recognized as maximizing the long-term benefits enjoyed by telecommunications users.

1. Spectrum should be allocated to those uses that generate the greatest social benefit. Because its overall supply is limited, it is important to allocate spectrum to those license holders who will use it to generate the greatest social benefits. The overall

¹ We are grateful to the NYNEX Corporation for commissioning our examination of these issues. We alone are responsible for the views expressed in this paper.

presumption should be that those who are willing to pay the most for the spectrum are the ones who will put it to the most valuable use. There are, however, two exceptions. One arises when a party's valuation reflects the undue exercise of market power. The second arises if and when there is an obstacle between a designated entity's willingness to pay for a license and the social benefits that this entity would create through use of the spectrum.

2. Firms should have sufficient incentives to invest in the research and the physical plant necessary to provide innovative new services. Telecommunications users will benefit from the allocation of spectrum for wireless services only if the firms receiving licenses have sufficient incentives to make the investments needed to provide these services. A sound investment environment is one in which firms do not bear excessive costs relative to potential returns, and do not face excessive risks.

Efficiency is not the sole criterion by which to assess the public interest; considerations of diversity and fairness are also important.

3. The spectrum allocation process should encourage diversity. As a matter of equity, the Congress has expressed its interest in promoting diversity of opportunity and ownership in the markets for emerging communications technologies. One way of ensuring diversity is to provide special features of the

auction process that increase the likelihood that small and minority-owned businesses can successfully bid for PCS licenses.

4. The spectrum allocation process should be fair. Under fair procedures, all parties are equitably treated. Equitable treatment means that the process is open to all qualified participants, that it is understandable to all participants, and that it does not arbitrarily disadvantage some parties relative to others. For instance, a fair allocation process does not disadvantage firms in one region relative to firms in another region in obtaining licenses. Similarly, a fair process will not unduly disadvantage cellular providers in obtaining PCS spectrum, except where there are direct social interests in applying such restrictions.

The choice of auction mechanisms and the Commission's implementation of these mechanisms will substantially affect the attainment of social goals both through: (1) direct effects on the operation of the auction market itself, and (2) indirect effects on the performance of the market for PCS services and the telecommunications marketplace more generally. Moreover, it is important to recognize that capital markets provide a significant and powerful link between auction markets and the wireless telecommunications marketplace.

In the auction market itself, the choice of auction institutions can affect both the expected size of the winning bids and the risk associated with submitting bids. The

expected value of the winning bids and the riskiness of bidding may depend on the auction procedures utilized because of the impact of the auction mechanism on: (1) the information that bidders can gather about one another; (2) the method for determining the winning bid; (3) restrictions on bidding by certain firms; and (4) the form and level of subsidies granted to some entities.

In terms of their impact on the public interest, the indirect effects of the auction process on the performance of the PCS market may be even more important than the direct effects in the auction market itself. By affecting who gets spectrum, the extent to which spectrum is aggregated across frequencies or geographic regions, and the economic terms of payment (e.g., royalties v. sunk payments), the auction institutions will significantly affect future competition among the winning bidders in the PCS market and the competition between PCS license holders and other firms in the telecommunications marketplace.

In the absence of sufficient investment incentives, this competition is unlikely to be vigorous or to result in significant cost and service innovations. Providers of PCS and other wireless services will need to attract capital from outside investors to finance the necessary expenditures on licenses, network facilities, and ongoing research and development. The attractiveness of investments in wireless services will depend in large part on ongoing Commission decisions with regard to the auction process and the regulation of wireless markets. This conclusion holds with equal or

greater force for designated entities. By taking care to implement policies that do not introduce undue new risks and uncertainties into what is already a highly uncertain environment, the Commission can make it easier for designated entities to obtain capital to finance their purchase of spectrum, construction of facilities, and other business startup costs.

In brief, our overall finding with respect to the auction of PCS licenses is that the public interest would best be served by the following policies:

1. The auctions for all of the PCS licenses should be run simultaneously.
2. Each PCS license should be allocated through the use of ascending bidding in an open outcry process.
3. Bidders should be able to submit combinational bids in simultaneous auctions.

In the remainder of this statement, we detail the logical and factual analysis that leads us to these policy conclusions. Should the Commission reject our recommendation for simultaneous auctions, we also offer recommendations on the best mechanisms for instituting a sequential auction process. We also examine several other issues that arise in the design of spectrum auctions and related rules for participation in them.

II. FUNDAMENTAL PRINCIPLES IN AUCTION DESIGN

The analysis of the ways in which the auction procedure affects the attainment of the public interest goals leads to a number of fundamental principles to which the

Commission should adhere in designing and implementing spectrum auctions.

A. The Auction Process Should Result in Those Parties Who Place the Highest Value on Spectrum Being the Winning Bidders.

This objective is fundamental to the attainment of efficiency. The total social benefits generated by use of the electromagnetic spectrum will be greatest when it is allocated to those firms whose services are of greatest social value. Typically, social values will parallel the underlying economic values that potential service providers place on the spectrum. Firms differ in terms of the value that their use of the spectrum will generate for themselves and for society as a whole. These differences in economic valuation arise from differences in entrepreneurship, expertise and know how, the services they plan to market, a firm's reputation with telecommunications users, and economies of scale and scope arising from interactions with other operations and the use of existing network facilities. For example, a firm with a truly innovative new service may be willing to pay much more to obtain spectrum than would a firm planning to supply a more mundane wireless service.

In the past, the Commission has undertaken comparative evaluations to see that spectrum has been put to its most valuable use. With the sale of spectrum, market forces created by the auction process itself will have to play this role, or else bids for spectrum will become little more than bets in a lottery.

B. The Auction Process Should not Impose Undue Risks on Participants.

It is important to consider effects on risk because these markets are characterized by a very high degree of uncertainty. There are several sources of this uncertainty. PCS bidders will be providing service with new technologies for which there is a lack of market experience regarding the demand for these services relative both to existing services and to the as yet undeveloped services with which they will compete in the future. Moreover, there is limited experience with the market for spectrum itself, and no experience with an auction bidding process for a new class of licenses on the scale contemplated for PCS.

Firms will, at best, have only very rough ideas of what the spectrum is worth to them, or what will be the bidding strategies of their rivals. The resulting risk that firms face can thus take two forms. First, a firm risks making a winning bid for an amount that is either higher than was necessary to win the auction, or higher than the true value that the bidder places on the spectrum that it has purchased. Second, a firm risks failing to win in situations where it is the bidder with the highest underlying economic valuation, but has strategically bid less than that valuation.

Risk reduction from the perspective of the managers in firms bidding for spectrum is a benefit to them. Increased information about the bids of others reduces the danger of bidding considerably more than the next highest bid. Similarly, it eliminates the danger of failing to obtain

valuable spectrum because the firm gambled on trying to get it cheap.

While risk averse managers directly benefit from risk reduction, the more important benefits are those that arise when this reduction induces managers to act in ways that better serve the public interest. In the presence of high levels of risk, differences in attitudes toward risk rather than the underlying economic value that different firms place on the spectrum may drive who wins the bidding. Consequently, the greater the perceived riskiness of the auction process, the greater the chance that misallocations of spectrum will occur. Moreover, managerial risk aversion may lead to firms making more conservative bids in the face of risk, with less government revenue as a result. Indeed, undue risk in the process may discourage firms from participating in the auctions at all, or from making needed investments in plant and equipment after winning licenses.² The former may lower auction revenues, and the latter may reduce the supply of PCS offerings.

C. The Auction Process Should be Designed to Promote the Flow of Information.

The choice of auction institutions affects the amount of information that bidders can gather during the auction process. There are several benefits of increased information.

² If, after the auctions have concluded, license holders experience "buyers' regret" from their having paid overly high prices, they may be less likely or, slower, to follow through with the capital investments and new product development needed to bring PCS services to market.

One benefit is that increased information flows help bidders resolve uncertainty in terms of what spectrum is likely to be worth, and increases the likelihood of spectrum being allocated to its highest value use. Another benefit is that better, more timely information reduces risk and thus leads to the benefits identified under point B above.

While, as a general rule, more information is better, there is one area in which increased information may be harmful to the public interest.³ If the bidders know one another's identities during the auction process, they may better be able to engage in speculative hold-up. With anonymity, it will be harder to target a firm for hold-up when its bidding and spectrum ownership patterns cannot be directly observed. Moreover, anonymity will limit the ability of firms to make preemptive bids designed more to harm specific competitors (by denying them access to valuable spectrum) than to allow the efficient and desirable provision of services. Finally, anonymity may play a role similar to that of sealed bidding in terms of making it more difficult for firms to engage in collusive bidding.

D. The Auction Process Should be as Transparent and Understandable as Possible.

Efficiency is not served by confusion. Unless participants clearly understand the process, one may end up

³ In some circumstances, there also can be a loss in revenue in a sealed bid auction when one party learns the bids of the others. There may, however, be an offsetting gain in terms of increased efficiency in spectrum allocation.

with a winner determined as a result of mistakes. Then there is no guarantee that the winner is the one who can best use the license. Confusion may also lead to conservative bidding and lower revenues for the Commission. Complexity raises the transaction costs of bidding, which has both direct costs from the expenses incurred to understand the system and indirect costs from the fact that some bidders may be discouraged from participating at all. An unnecessarily complex procedure imposes costs on all participants and may particularly disadvantage small businesses, rural telcos and businesses owned by minorities and women. Fundamental conceptions of fairness also dictate that the process be understandable. Lastly, clarity in the process will help establish the credibility of, and public support for, auctions as a fair and efficient means of allocating spectrum.

E. The Auction Process Should Discourage Insincere Bidding.

A firm might submit insincere bids to learn strategies of others or simply to delay the overall process. Or, a firm might purchase a block of spectrum solely to harm other PCS providers either by denying them access to valuable spectrum (strategic stockpiling to preempt competition) or to engage in hold up. The auction process should be designed to prevent such behavior because it can otherwise lead to inefficiency: by allocating spectrum to uses that are not the ones that generate the greatest social benefits; by reducing the informativeness of bids; by creating undue risk; and by wasting resources on directly unproductive rent-seeking activities.

F. The Auction Process Should Promote Ownership by Designated Entities without Introducing Undue Distortions in the Telecommunications Marketplace.

If, ex ante, the auction process seems likely to generate economically justifiable winning bids, bidders with demonstrable management, marketing, and technical capabilities and a credible business plan should have access to capital markets for obtaining financing for reasonable bidding strategies. If, ex post, the auction process is seen as having generated economically justifiable winning bids, a winning bidder will hold a valuable asset that (in conjunction with management, marketing, and technical capabilities and a credible business plan) can be used to obtain financing in capital markets for network facilities and other startup costs.

Where there are biases in capital markets that would make it more difficult for small businesses or minority-owned enterprises to obtain financing, the Commission should target its preferential treatment to designated entities to overcome the specific capital market failures. In so doing, the Commission can achieve its goals of diversity while minimizing the chance that it will, by those preferences, create distortions that will reduce the efficiency of the auction process or decrease the effectiveness of capital markets in providing the financing necessary for PCS licenses and investment, whether by designated entities or other prospective licensees.

In designing policies to encourage participation by small businesses, rural telcos and businesses owned by minorities and women, it is important to note that these

businesses can and will participate in the PCS marketplace in many ways in addition to holding PCS licenses themselves: as suppliers of equipment and services to PCS providers; as retailers of PCS handsets and services; and as investors in companies that own PCS licenses. Given these multiple opportunities for participation, the Commission should be certain that special provisions designed to promote diversity do not detract from the economic viability of PCS.

G. The Auction Process Should Allow Parties to Aggregate Spectrum (both geographically and across frequencies) When Doing so Creates Value.

The auction process itself should not hinder the aggregation of frequency blocks or the combination of licenses for different trading areas when doing so creates economic value. Here too, capital markets will play a role in disciplining the process. Unless bidders pursue spectrum aggregations or market combinations that have economic merit, they will face penalties in capital markets, whether through lower share prices, higher capital costs, or reduced access to subsequent financing.

H. The Auction Process Should Allow Parties to Form Alliances When Doing so Creates Value.

Interfirm cooperation may allow providers to offer lower cost or higher quality services to end users. Indeed, for some firms, cooperative bidding and service provision may be the only feasible means of competing on a large scale. Moreover, firms entering into efficient alliances may place a greater underlying economic value on spectrum, which can lead to their submitting higher bids.

III. FUNDAMENTAL ELEMENTS OF AUCTION DESIGN

In this section and the next, we analyze ways in which the auction process can be designed and implemented in accordance with the public-interest principles identified in the previous section. The analysis of the present section is concerned with the fundamental structure of the auction process, such as the nature of bidding and the sequencing of auctions for particular blocks of spectrum. A key point is that these different features have to be considered as a package: A change in one will influence the best choice of the others. In the following section, we will address issues that, to some extent, can be considered in isolation from one another.

A. The Commission Should Simultaneously Auction all Licenses Through English Auctions with Combinatorial Bids.

Our analysis indicates that the following procedure would best serve the public interest and satisfy most, if not all, of the fundamental principles of auction design identified in Section II of this Statement. There are several components to the overall procedure.

1. The auctions for all of the licenses for a given wireless service should be run simultaneously.
Needless to say, such auctions will have to run electronically. Expertise on running electronic auctions on this scale already exists in the financial community.
2. Each license should be allocated through the use of an English auction. In other words, each of the

component auctions would entail the parties' making ascending bids in an open outcry process.

3. Bidders should be able to submit combinatorial bids in simultaneous auctions. In addition to the auctions for individual licenses, there should also be English auctions for a set of well-defined combinations of licenses. For example, there might be an auction for a combination of all 51 MTA licenses. This auction would be conducted simultaneously with those for the 51 individual MTA licenses. At the end of the bidding, the highest combinatorial bidder would be declared the winner if and only if its bid exceeded the sum of the highest bids in the 51 single-MTA auctions.

There are several important advantages of this procedure. First, the open outcry system is the most likely to ensure that spectrum is allocated to those users who value it the most highly. Under a sealed bidding system, parties may bid strategically and make incorrect guesses about the bidding strategies of their rivals. As a result, spectrum may be inefficiently allocated. In contrast, under open bidding, a firm always has a chance to put in a higher bid if it values the spectrum by more than the current high bidder.

The use of open bidding also provides a greater level of information than does either simultaneous sealed bidding or a series of sequential auctions with open bidding. When each firm is uncertain about the economic value of the spectrum, it may be able to learn something about its own valuation from the

values that other potential service providers place on the spectrum. Under open outcry, some of this information may be conveyed through the bids that are submitted. When a firm sees other bidders expressing a willingness to pay a high amount for the spectrum, that firm may revise its own estimation of spectrum value and its willingness to bid for that spectrum upward.

Consider now the contrast between sealed and open bidding. Sealed bidding limits the learning process just described. Under sealed bidding, the firm that ends up being the winning bidder does not have a chance to see the actual value of the next-highest bid when choosing its own bid.

In comparison with sequential auctions, there is more information available to participants in simultaneous auctions. There is learning in sequential auctions, but it is more limited. Sequential auctions result in the bidders being relatively poorly informed in the early rounds. With simultaneous auctions, bidders can better see what is happening because there is no need to complete initial auctions in a state of comparative ignorance: When making a bid in any one auction, a bidder can see the leading bids in all of the other auctions as well.

A system of simultaneous open outcry auctions is fair to all bidders because there is no arbitrary choice of auction sequence in terms of frequency, geography, or relative order between single and combinatorial bids.

A system of simultaneous open outcry auctions allows the Commission to monitor the behavior of bidders who are

qualified only for certain auctions, or are subject to some other limit.

A system of simultaneous open outcry auctions allows the Commission to monitor the actions of designated entities.

A system of simultaneous open outcry auctions with combinatorial bidding allows for the efficient aggregation of spectrum. There would be no danger of being stuck with a low-value combination of licenses that falls short of the desired aggregation. Hence, the risk of pursuing combinatorial strategies is reduced. This process also makes the possibility of hold up less likely.

The main design issue is how to construct a stopping rule. The leading candidate is to terminate the auction for a given license once a set interval of time passes without the submission of a new bid. However, one needs to think through the choice of stopping rule for the auctioning of licenses that also are the objects of combinatorial bids.

B. If the Commission Adopts Sequential Auctions, It Should Auction an Entire Spectrum Block Before Proceeding to the Next One, Randomize Over the Order in which Geographic Regions Within a Block are Licensed, and Allow Combinatorial Bidding.

While we strongly urge that the Commission adopt simultaneous auctions, we now offer our recommendations on sequential auctions, should the Commission decide to adopt that approach. We consider two different possibilities for ordering the license auctions: (1) all of the frequency blocks in one geographic market area, then all of the blocks in a second area... and (2) all of the markets for one block, then all of the markets for the second block... In light of the relative

information-generating characteristics of the two orderings, we prefer the second one. Under this approach, bidders for later blocks would have considerable information about the valuations implicit in prior blocks when determining their bids. Using a block-first, market-area-second ordering would also facilitate combination bids across markets, which we believe will be the more important form of combination.

If the Commission chooses to adopt the first ordering and run the auctions for all of the blocks within a given area before proceeding to the next area, the order in which spectrum in different geographic areas is auctioned off can matter for both efficiency and fairness. For example, suppose that the Commission chose to auction spectrum for the New York City area first due to its population size, with other areas following. As auctions progress, participants will learn more about what is going on. Hence, participation in early rounds may be riskier. But a firm like NYNEX might have no choice but to bid in its home region. Therefore, if the Commission does adopt sequential auctions for different geographic areas, it should proceed in random order across trading areas within each block.

The combination of disallowing combinatorial bids and running sequential auctions would likely discourage efficient spectrum aggregation. A bidder would be reluctant to go after initial licenses if it could not be assured of obtaining the whole package at reasonable cost. Moreover, sequential bids would be more vulnerable to hold-up because one party could manipulate its bid on a small block of spectrum in order to extract payment from another party that was attempting to

aggregate the spectrum. In contrast, hold up would be very hard or impossible to undertake profitably in the presence of a well-designed combinatorial bidding procedure.

C. If the Commission Adopts Sealed Bid Procedures, then it Should Use Vickrey Auction or a Modified Vickrey Auction.

The rule for determining what the high bidder actually pays also affects how the firms respond to the lack of information. One choice is between first-price and second-price auctions. A second-price, or Vickrey, auction reduces the risk of bidding "too much." To the extent that a Vickrey auction induces parties to submit bids equal to their true underlying economic valuations of the license, spectrum is efficiently allocated to the bidder who has the highest valuation. Wherever the Commission uses a sealed bid auction, it should be operated as a Vickrey auction or a variant of it.

Under the proposals in the Notice of Proposed Rulemaking, this issue of sealed bidding appears most likely to arise in the context of combinatorial bidding. If a sealed bid is used for combinatorial bids, then the cost and risk of obtaining an MTA or national license can be significantly affected by a decision to allow sophisticated bids, such as one in which a bid for a national license takes the form of a premium over the sum of individual bids subject to some upper limit or reservation price. The Commission should examine the use of this or some other generalization of a Vickrey auction. These generalizations may help overcome some of the Commission's concerns regarding Vickrey auctions. For example, having the winning bidder pay the average of the first- and

second-highest bids could reduce the likelihood of a winning bidder's obtaining a license for much less than its bid.⁴

IV. COMMENTS ON SPECIFIC ELEMENTS OF AUCTION DESIGN

In this section, we address issues that, while not central to the design of the auction process itself, will nonetheless have important effects on both the auction market and the PCS market.

A. The Commission Should Promote Sincere Bidding by Raising the Cost of Default and Attempted Holdup.

There are three fundamental approaches to limiting insincere bidding.

One approach is to impose bidder qualifications.

Possible criteria include:

- Demonstrated technical competence;
- Financial strength;
- Deposit requirements (refundable or not); and
- Limitations on other services offered.

A second approach is to penalize default, either by having nonrefundable deposits or assessing fines.

A third approach is to raise the costs of stockpiling and holdup by adopting use-it-or-lose-it rules that mandate the commencement of service provision within a specified period of time from the auctioning of the license.

⁴ Of course such a procedure would reduce parties' incentive to submit bids equal to their true underlying economic valuations of the spectrum.

We recommend that the Commission adopt stringent eligibility qualifications, penalize default, and adopt mandatory use requirements. We recommend that the Commission limit the use of up-front payments because they impose costs on bidders who are otherwise reliable and well-intentioned.

B. The Commission and the U.S. Department of Justice Should Issue Guidelines on the Treatment of Alliances in Determining Whether Collusion or Bid-Rigging has Taken Place.

The Commission asked for comments on the treatment of collusion. The treatment of so-called collusion in bidding will be critical to the formation of strategic alliances and this is an area of great concern.

From the public interest perspective it is vital to allow interfirm cooperation where this enables firms to reduce costs and provide improved services to telecommunications users. Indeed, such alliances may well lead to higher bids for spectrum. At the same time, policy makers must be alert for cooperative agreements that are little more than attempts to collude in holding down the amount bid and paid for spectrum.

The determination of where this balance between the benefits of improved services and the costs of collusion lies is made in the courts in response to complaints brought by the U.S. Department of Justice, the State Attorneys General, and private parties who claim to have suffered injury. Indeed, the protection provided by existing antitrust law may obviate the need for Commission action in this arena.

There is, however, a serious problem, particularly when fast-track auction procedures are being used and there are

high penalties for default. Unless clear guidelines are set out, the threat of antitrust action may paralyze firms that would otherwise form alliances that serve consumer and public interests. In this regard, there may be more of a problem in spectrum auctions than in auctions for oil leases (to which spectrum auctions are sometimes compared) because there are more complex marketing and technological synergies in telecommunications and thus a need for more sophisticated and flexible alliance strategies.

The Commission and/or the U.S. Department of Justice should issue clear guidelines for determining the degree of antitrust concern posed by a bidding alliance. Such guidelines would play a similar role to that played by the U.S. Department of Justice merger guidelines. The alliance guidelines might, for instance, provide a set of criteria by which private parties could determine that the government was very unlikely to institute an action against them.

As a longer run solution to the problem of enabling alliances to participate in rapidly evolving auctions, the Commission should work with the U.S. Department of Justice to develop preliminary clearance procedures that would immunize parties from treble antitrust damages and from auction default penalties should they later be found to be in violation of antitrust policy.

C. The Commission Should Issue a Clear Statement About its Intentions with Respect to Future Licensing Decisions.

Since the economic value of the spectrum depends in part on actions taken by the Commission, bidders will face

tremendous risks unless the Commission provides assurances about future regulatory developments. There are at least three areas of concern:

- 1) Allocation of new spectrum to telecommunications. The value of spectrum may be strongly influenced by whether more of it becomes available in the future. Commitments to wait before licensing new wireless services were not made in the U.K. for CT-2, and that is given as one reason why the technology was a dismal failure. Such commitments were made by regulators in Canada.
- 2) Treatment of private users. Private users might provide substitute services for themselves and (with excess capacity) to others. This form of competition will be particularly problematic if the underlying spectrum is not auctioned. Subject to legislative restrictions, the Commission should allocate spectrum to these users through auctions, rather than lotteries.
- 3) Mandatory interconnection. Rules in this area could affect both the value of individual licenses and firms' ability to fill in gaps when offering geographically dispersed service without buying a regional or national license.

To the extent that it can do so, the Commission should publicly state its intentions in these and any other areas that may affect the value of spectrum and the investments made to utilize it.

D. The Commission Should Impose Bidding and Ownership Restrictions on Cellular Operators that Minimize Undue Distortions.

The Commission has placed restrictions on the cellular providers' ability to obtain PCS spectrum in those areas where they have a cellular license. This may have the unintended effect of making it difficult for current cellular providers to obtain spectrum in areas where they currently have no cellular interest. This is the result of their not being able to pursue

national licenses or even MTA licenses where there is partial overlap.

The Commission should allow bidders to commit to divesting themselves of spectrum assets (either cellular or PCS) conditional on their winning one or more licenses that would otherwise result in overlap. For example, suppose that carrier X wants to bid for a particular MTA but it has a cellular property that covers 25% of the population within that MTA. Under the proposed rule, that carrier would be prohibited from even bidding on a 30 MHz license. Under the proposal here, they could sell off the cellular property within a given period of time (e.g., two years) after winning the PCS license for that MTA. Commission oversight could be used to insure that the sale was made to a viable competitor.

E. The Commission Should Implement Policies that Encourage Participation by Designated Entities While Minimizing Overall Distortions in the Wireless Marketplace.

There are several options open for promoting ownership of wireless service providers by designated entities. One approach is to provide direct or indirect subsidies such as preferential financing or bidding preferences. Another approach is to reserve certain blocks of spectrum for designated entities.

In choosing how to treat minority and other bidders deemed to have particular social merit, the Commission should act to provide access to these groups while minimizing any distortions in the marketplace. This has several implications.